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PATENT

I hereby certify that on the date specified below, this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to the Commissioner for Patents, Washington, DC 20231.

Date

6/11/01

Jeanne Connelly

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Jeffrey Chan et al.
Application No. : 09/749,303 Confirmation No.: 5430
Filed : December 27, 2000
For : METHOD AND SYSTEM FOR ANALYZING PERFORMANCE
OF A TURBINE

Docket No. : 243768021US

Date : June 11, 2001

Commissioner for Patents
Washington, DC 20231

TRANSMITTAL OF FORMAL DRAWINGS

Sir:

Enclosed please find 13 sheets of formal drawings (Figures 1-13) for the above-identified application.

Respectfully submitted,
Perkins Coie LLP



Maurice J. Pirio

Registration No. 33,273

MJP:jc

Enclosures:

13 Sheets of Drawings

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Turbine Optimizer | Packaged Offerings | Technical Documents | M & D | Quote Bin - Buy

Choose a Site: MY STATION

Choose a Unit: 006 -- MY7FAGT

90

Unit / Outage Information										Correct any deficiencies in the data below - click update to effect your changes									
Next Outage Dates		MM		DD		YY				Customer ID		MY CUSTOMER		Site ID		MY STATION			
MAJOR		02		02		2001				Unit #		0008		Serial #		M222-037			
HOT GAS PATH										Output Volume		150108 ISO Connected		Heat Rate (Btu/kWh)		9777 ISO Connected			
COMBUSTION										Availability (%)		0.0 Same OP/4P		Reliability (%)		0.0 Same OP/4P			
Operational Cycle		Combined Cycle								Op Hours		8000		Unit Starts		147			
Loading Cycle		Mid-Range								COD		08		21		1994			
Fuel Type		Liquid Natural Gas								Reading Date		09/01/1997		Frame Size		071125			
Emission Control		Dry Low NOx 2.6								Unit Type		Gas Turbine		Control Type		update			

! Notes on Fleet Performance comparison figures (OUTPUT, HEATRATE, AVAILABILITY, and RELIABILITY)

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[illegible]

Identify Inaccuracies or Missing Information

Fig. 1

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Choose a Site: MY STATION

Choose a Unit: MY7FAGT

200

Electricity Price Cents/kWh: 6

Fuel Cost \$/MBTU: 3

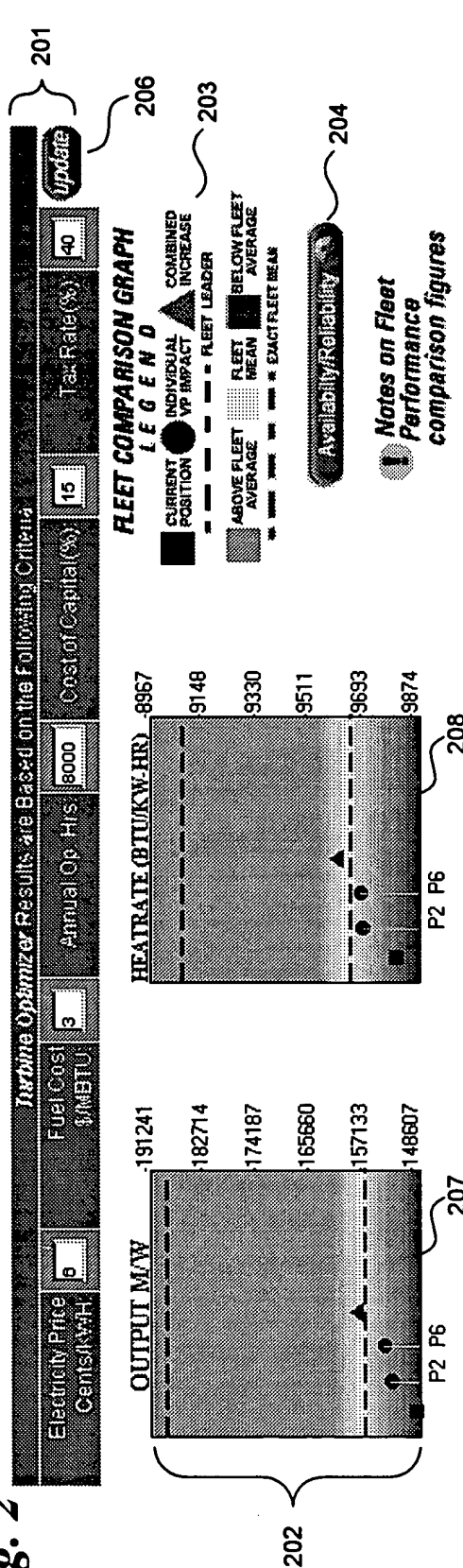
Annual Op. Hrs: 8000

Cost of Capital (%): 15

Tax Rate (%): 40

Update

Fig. 2



View Impact	Quote	OE Reference Number	Value Package Name	Lead Time (Weeks)	Heat Rate (%)	Estimate of Annual Revenue (US\$)	Present Net Value (US\$)	Estimate of Years Payback
P1	<input type="checkbox"/>	SV1871FA	Full Upgrade Turbine Optimizer II	52	-1.80	\$2,232,450	\$4,680,000	6.8
P2	<input checked="" type="checkbox"/>	SVN71FA	Stage 1 Turbine Optimizer Package I	32	-1.02	\$1,162,540	\$3,220,000	0.6
P3	<input type="checkbox"/>	SV071FA	Stage 1 Turbine Optimizer Package IV	32	-0.97	\$534,391	\$1,410,000	1.0
P4	<input type="checkbox"/>	SVP71FA	Stage 1 Turbine Optimizer Package III	32	-0.97	\$951,262	\$2,520,000	0.6
P5	<input type="checkbox"/>	SV071FA	Stage 1 Turbine Optimizer Package II	26	-0.43	\$702,463	\$1,680,000	0.5
P6	<input checked="" type="checkbox"/>	SVN71FA	Stage 2 and 3 Turbine Optimizer Package I	36	-1.10	\$1,492,780	\$4,560,000	0.4
P7	<input type="checkbox"/>	SV071FA	Stage 2 and 3 Turbine Optimizer Package II	36	-1	\$1,426,770	\$4,000,000	0.4

Uprate Performance Impact Matrix												
301			302		303		304					
Customer Name	SN	Output	Current Rating	Stg1		S1B, S1S		S1N, S1S		S1B, S1N		Performance Impact (parts only)
ACME	297031	Output	163272	0.64	0.31	0.70	0.13	0.00	0.00	0.08	0.09	1.30
TI=2420, IGV=90		HR	9623	-0.51	0.02	-0.55	0.36	0.00	0.00	0.02	0.03	-0.77
Smith	297112	Output	165151	0.54	0.21	0.70	0.03	0.00	0.00	0.08	0.09	1.20
TI=2420		HR	9461	-0.51	0.02	-0.55	0.36	0.00	0.00	0.02	0.03	-0.77

304															
Sum Parts+ TT	Cycle Deck Run	FV1B	FV1P	FV1T	FV1U	FV1V	FV1W	FV1N	FV1O	FV1Q	FV4B	FV4P	FV4T	FV4U	FV4V
0 1.3		1.3	0.313	0.594	0.086	0.0799	-0.033	0.639	0.6993	0.125	n/a	n/a	n/a	n/a	n/a
0 -0.77		-0.77	0.02	-0.198	0.026	0.02	0.0733	-0.506	-0.553	0.363	n/a	n/a	n/a	n/a	n/a
0 1.3		1.2	0.313	0.594	0.086	0.0799	-0.033	0.639	0.6993	0.125	n/a	n/a	n/a	n/a	n/a
0 -0.77		-0.77	0.02	-0.198	0.026	0.02	0.0733	-0.506	-0.553	0.363	n/a	n/a	n/a	n/a	n/a

Fig. 3

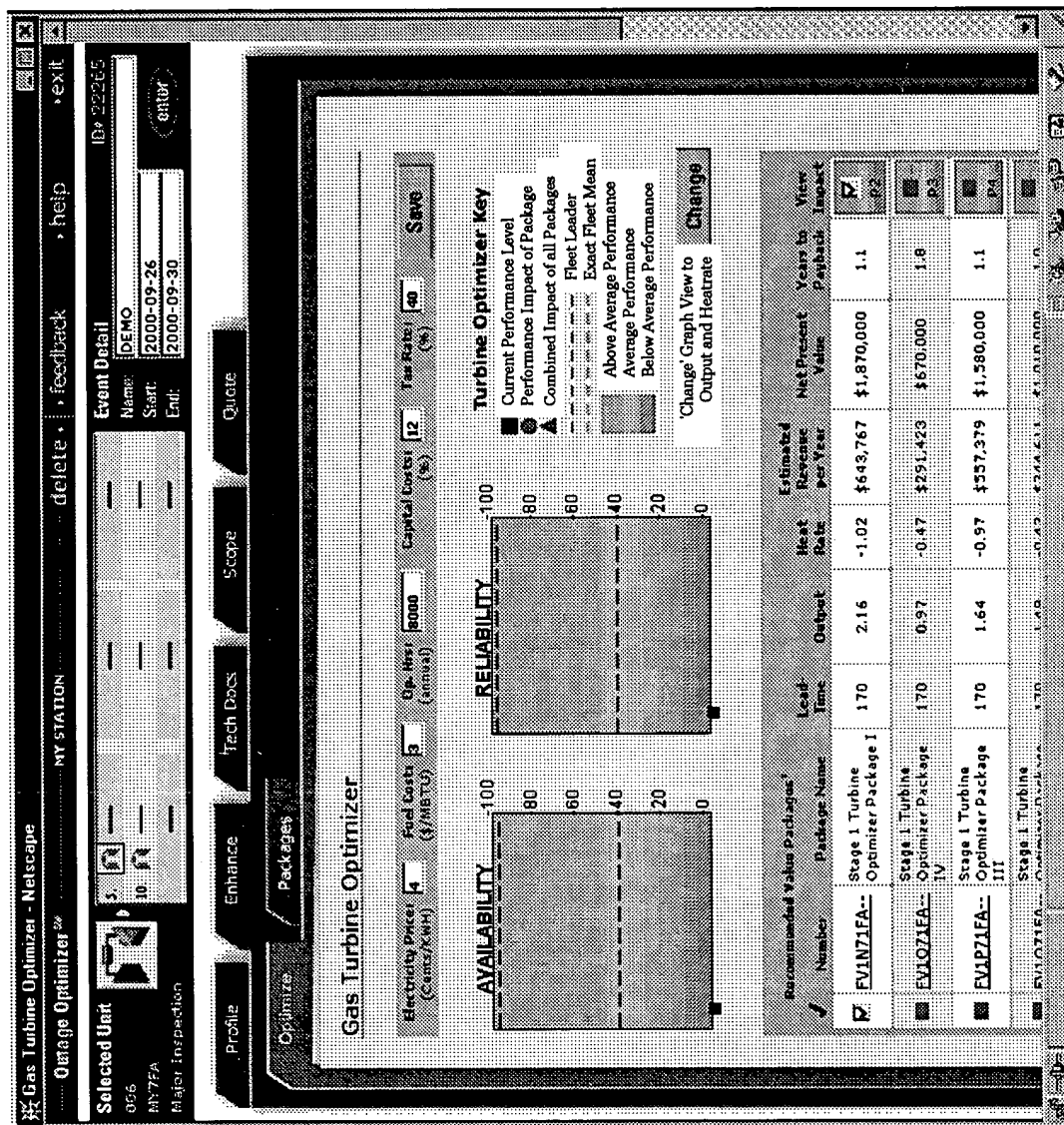


Fig. 4

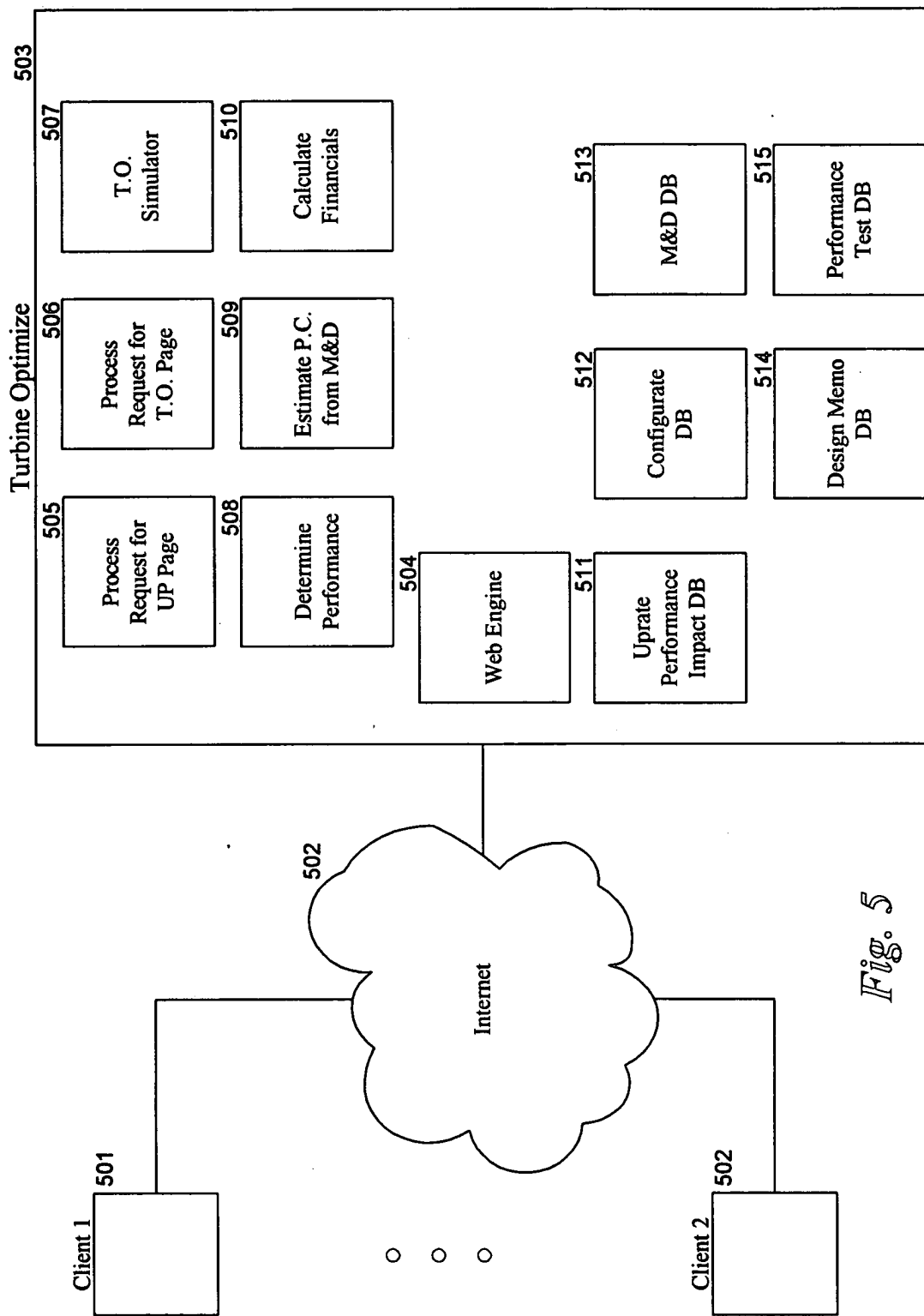


Fig. 5

(Site, Unit)

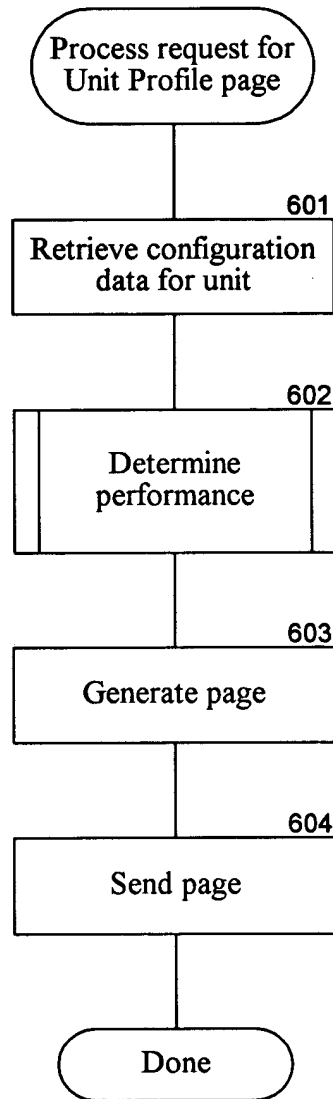


Fig. 6

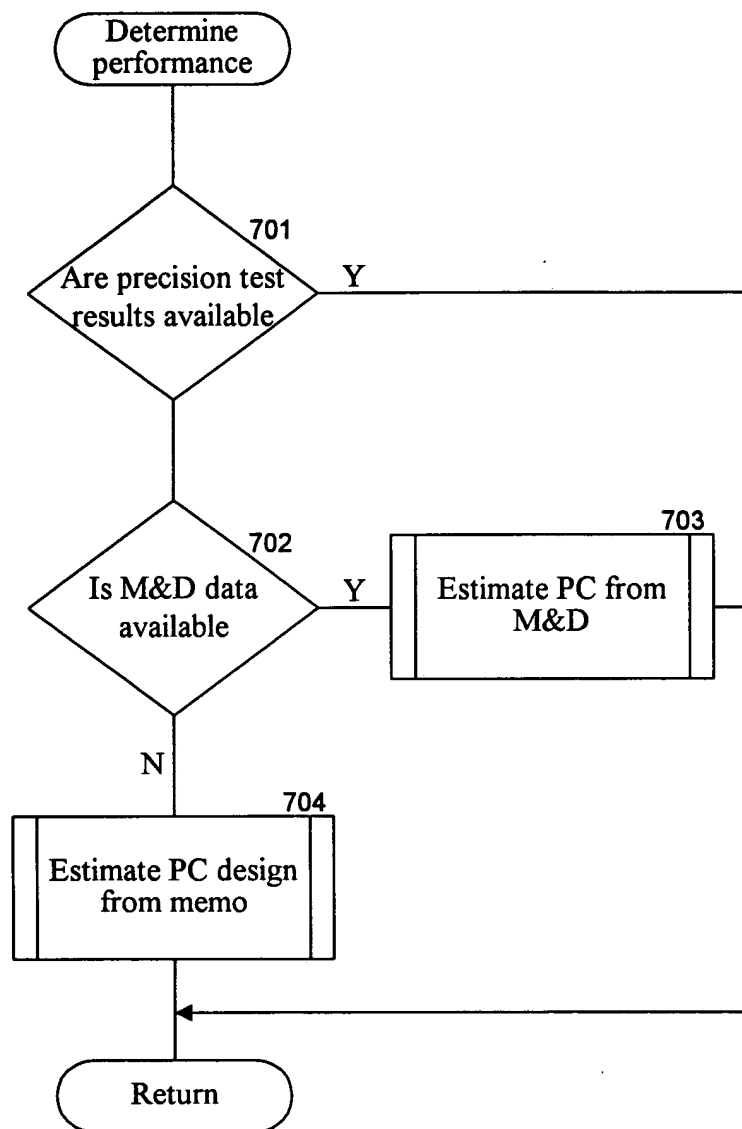


Fig. 7

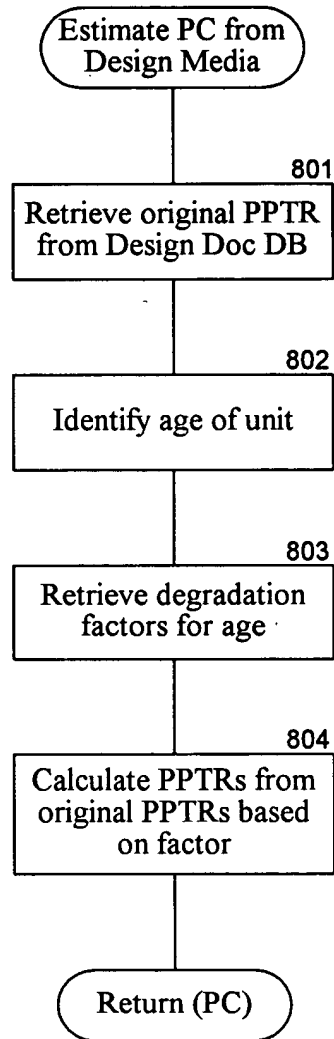
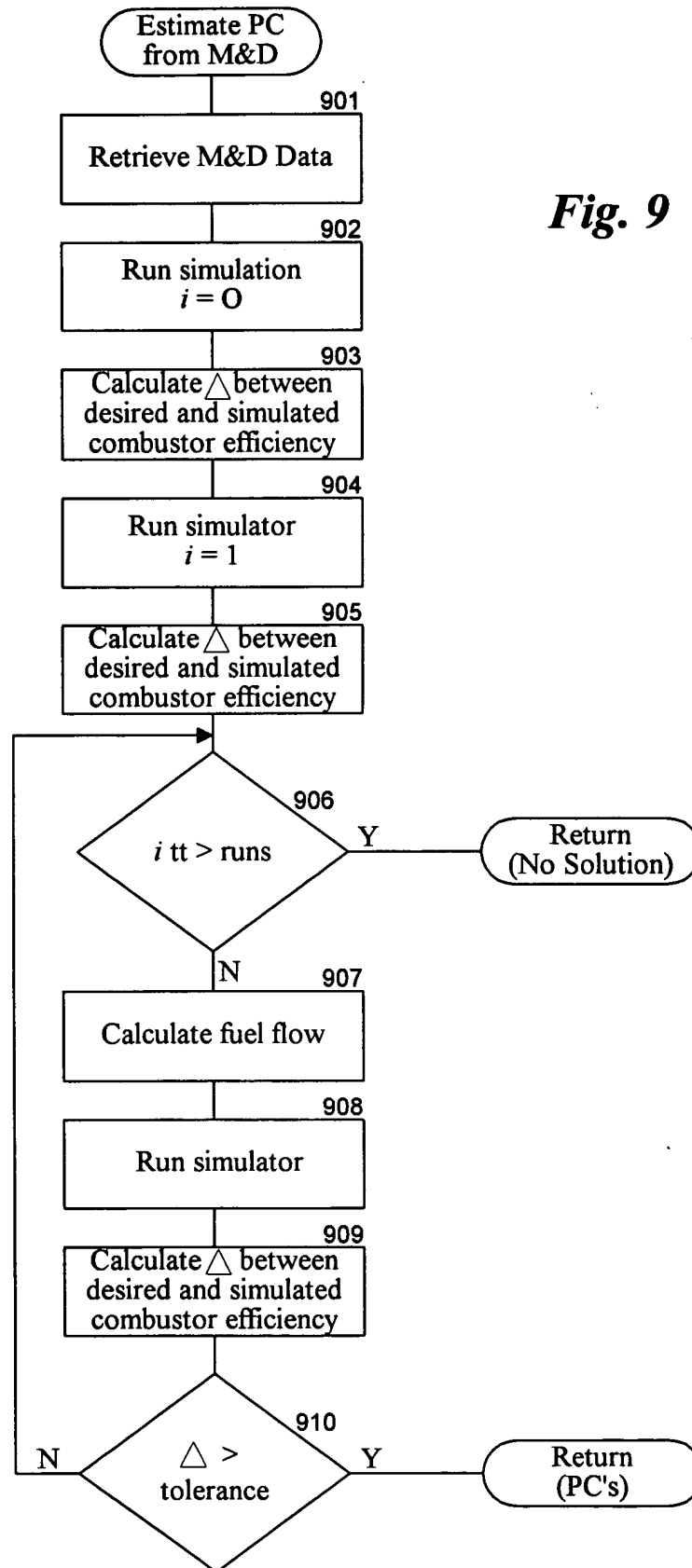


Fig. 8

Fig. 9



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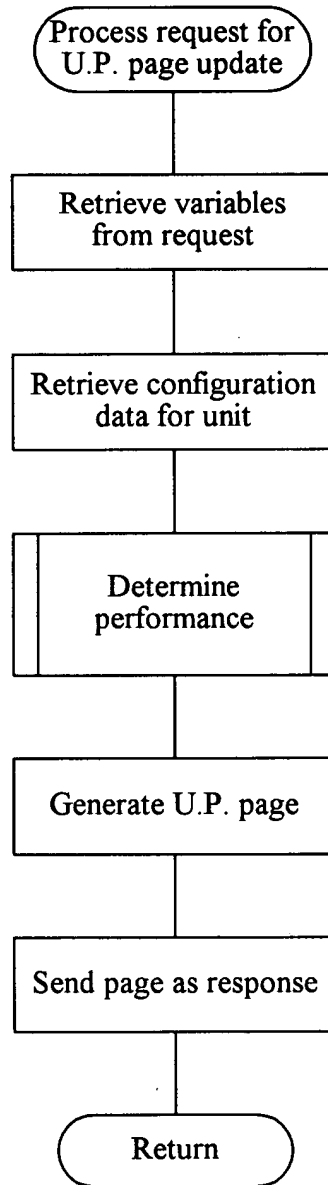


Fig. 10

1101 1102 1103

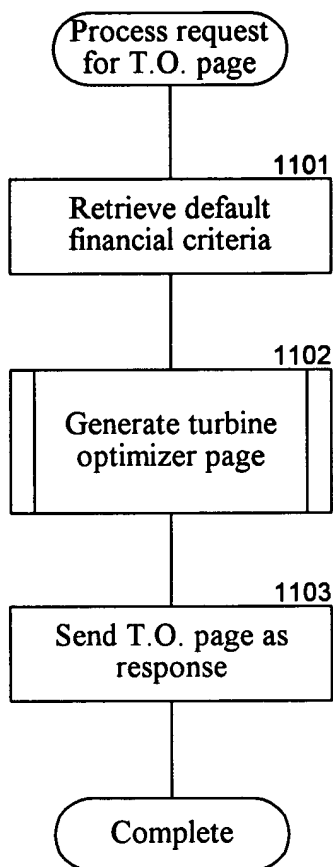


Fig. 11

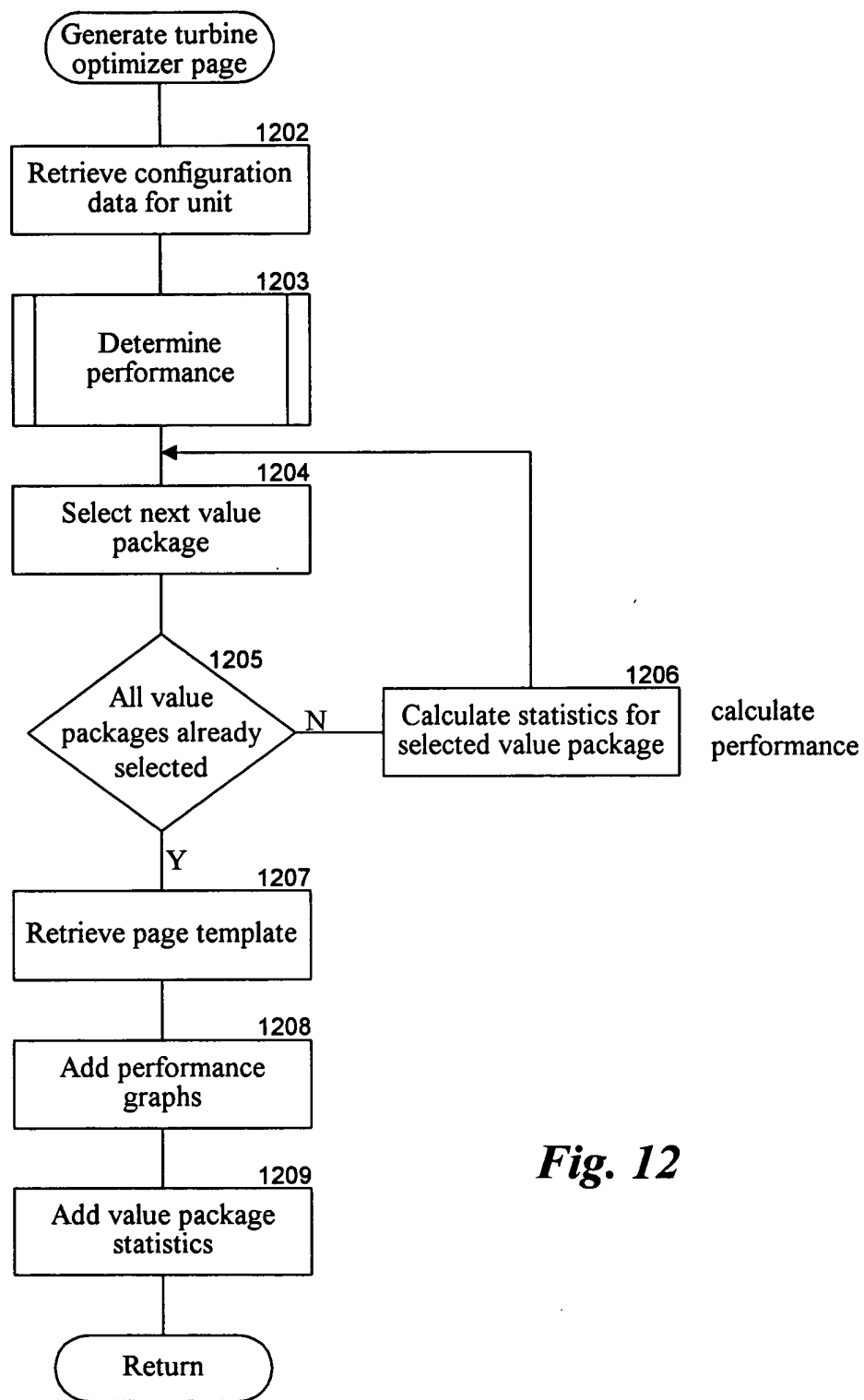


Fig. 12

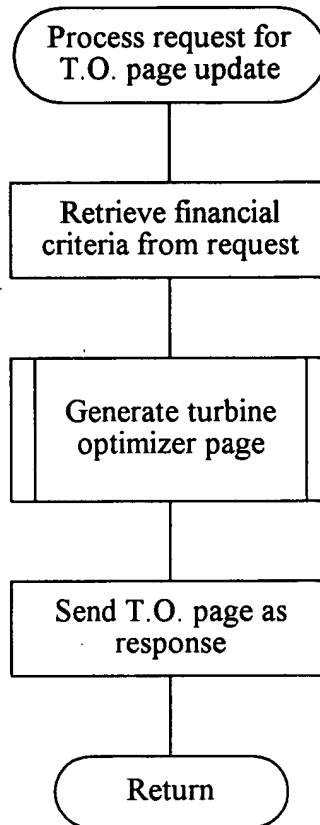


Fig. 13